UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,371	10/28/2003	Paramjit Kahlon	OIC0098US	6773

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60975          7590          07/07/2010
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EXAMINER
DANNEMAN, PAUL

ART UNIT	PAPER NUMBER
3627	

MAIL DATE	DELIVERY MODE
07/07/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 April 2010</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-33</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-33</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This Office Action is in response to the Amendment filed on 9 April 2010.

2.   Claims 1, 9 and 29 have been amended.

3.   Claims 1-33 are pending and have been examined in this Office Action.

Response to Arguments

4.   The two rejection of Claims 1, 9 and 29 under 35 U.S.C. § 112, first paragraph is respectfully withdrawn as Applicant has amended the claims.

5.   The Examiner recognizes the Applicant's request to hold the Obviousness-type Double Patenting rejection in abeyance. The obviousness-type double patenting rejection will be maintained in the Office Action until such time that a Terminal Disclaimer in compliance with 37 CFR 1.321© or 1.321(d) is filed or the application is abandoned.

6.   Applicants argue that *"neither Horel nor Coleman, alone or in any combination, teach or suggest at the very least: (1) generating a target inventory transaction in a target computer system, where the target inventory transaction is part of a synchronizing process performed in response to a source computer system inventory transaction, and (2) committing the inventory transaction information in the target format to target inventory transaction information of the target computer system by performing the generated target inventory transaction. Independent claims 9 and 29 recite comparable limitations."* Respectfully these are the amended limitations of the instant Claim 1 also the Examiner disagrees with the argument for the following: The Applicants' published specification in paragraph [0049] clearly recites **"the facility converts inventory transaction information from a form used by the source system to a form used by the target system."** The arguments regarding Horel are moot as the Examiner has entered a new ground of rejection.

7.   Applicants further argues *"that Horel fails to teach the new 'generating' and 'committing' limitation, at least because Horal is directed at a much simpler problem"* translating data. *Plain data is not comparable to any type of transaction, and thus the fact that Horel simply manipulates*

data provides no basis for characterizing Horel as somehow teaching the claimed synchronization, nor the claimed generating a target inventory transaction and committing inventory transaction information in a target format to target inventory transaction information of the target computer system." Respectfully the Examiner disagrees for the following: "Generating" is about taking the data from the intermediate format (data from the source system which has been formatted into an intermediate format) and converting the data to a format compatible with the target system; "Committing" is about taking the data in the format compatible with the target system and storing the data in the target system. The whole intention of synchronizing databases is to ensure that changes that occur in either the source or target system databases are updated (synchronized) in the other system's database. The arguments regarding Horel are moot as the Examiner has entered a new ground of rejection.

8.   Applicants' arguments regarding the newly amended limitation of Claim 1, 9 and 29 *"synchronization is performed in response to performing a source inventory transaction, and the inventory transaction information in the target format is committed by performing a generated target inventory transaction"* are addressed in the rejection below.

Double Patenting

9.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.   A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re*

Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

10.   A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

11.   Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12.   **Claims 1-7, 29-33 and 9-15** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 and 9-24 of copending Application No. **10/696,156**. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims are directed to a computerized inventory management system where an integration server is used to synchronize inventory information between a source and target system.

13.   This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

14.   **Claims 1-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jain et al., US 5,806,075 (Jain) and further in view of Coleman, US 5,708,828.

Claims 1, 9 and 29:

    With regard to the limitations:

- *A plurality of computer systems and an integration server,*

- *The computer systems are configured to communicate with the integration server via a network,*

- *Each of the computer systems is configured with at least one corresponding inventory system of a plurality of inventory systems,*

Jain in at least Fig.1 and Column 5, lines 11-23 discloses a networked environment consisting of one or more locations (e.g., database servers or computer sites), Duplicate copies of the same data may be resident at more than one location (e.g., one or more database servers or computer systems).

Jain in at least Fig.2B and Column 5, lines 45-50 discloses DatabaseB 130, like DatabaseA 120 contains <u>inventory and orders tables</u>.

Jain does not specifically disclose an integration server, however Coleman in at least Fig.1, Fig.2B, Column 2, lines 41-56 and Column 6, lines 26-47 discloses a <u>data conversion system and method</u> which uses a data conversion language/engine (DCLE) (integration server) to convert data from any number of different types or formats from any of various platforms to a <u>single common data standard</u> which is then converted to a new desired format or type. Computer system 22 (<u>integration server</u>) executes the data conversion system and method between a mainframe computer system 24 and a PC-based system 26.

Therefore, it would have been obvious, at the time of the invention, to one of ordinary skill to combine the well known systems and functions for peer-to-peer data replication of data across a network of servers having copies of an inventory database of Jain with the equally well known integration server functions for data conversion of Coleman with no change in their respective function, and the combination would have yielded predictable results.

- *The synchronizing is performed in response to a source inventory transaction,*
- *The synchronizing is performed between any plurality of the plurality of inventory systems, and*

Jain in at least Column 5, lines 24-45 discloses databaseB 130 located at data site B 110 which contains a duplicate copy of databaseA 120 at data site A 100. Jain in at least Column 6, lines 8-19 discloses users A and B respectively associated with data sites A and B, each processing orders received at their respective sites and updating their respective <u>inventory tables</u>. Jain in at

least Column 6, lines 20-28 discloses that based on their respective processing of orders at data sites A and B the respectively databases A and B only disclose their <u>respective orders</u> and <u>quantities of goods</u> and do not reflect all the orders that have been processed at all of the sites. Jain in at least Column 6, lines 30-36 further discloses there is a need to propagate local modifications to all remote copies of the same data item.

Jain in at least Column 6, lines 53-61 discloses that the present invention provides the ability to replicate data across databases based on a <u>trigger</u>. The trigger is a procedure associated with an inventory table which is executed when a <u>modification</u> (e.g., update, insert or delete) occurs in a database table.

- ***The synchronizing comprises;***

- ***Extracting inventory transaction information in a source format from the Source computerized inventory management system;***

- ***The source inventory transaction is an inventory transaction occurring in the source inventory system,***

Jain in at least Column 6, lines 20-28 discloses that based on their respective processing of orders at data sites A and B the respectively databases A and B only disclose their <u>respective orders</u> and <u>quantities of goods</u> and do not reflect all the orders that have been processed at all of the sites. Jain in at least Column 6, lines 30-36 further discloses there is a need to propagate local modification to all remote copies of the same data item.

Jain in at least Column 6, lines 53-61 discloses that the present invention provides the ability to replicate data across databases at the row level and at the procedure level.

Jain in at least in at least Fig.2C, Fig.5C, Fig.6 and Col 10, lines 44-64 discloses replicating the changes in DatabaseA to DatabaseB.

- ***Converting inventory information from the source format into an intermediate format at an integration server; and***

- ***Converting inventory information from the intermediate format into the Target format at an integration server,***

Jain does not specifically disclose that the source format and target format are different. Jain in at least Column 5, lines 1-10 discloses that numerous specific details have been provided to provide a more thorough description of the present invention and in some instances; well-known features have not been described in detail so as not to obscure the invention.

However Coleman in at least Fig. 1 and Column 2, lines 41-56 discloses a <u>data conversion system and method</u> which uses a data conversion language/engine (DCLE) to convert data from any number of different types or formats from any of various platforms to a <u>single common data standard</u> which is then converted to a new desired format or type. The system and method allows for multiple database conversions. The computer system 22 in Fig. 1 executes the data conversion system and method on data received from <u>the first storage medium of a mainframe 24</u> and subsequently <u>converts the data from the single common data standard</u> to the format of the <u>second storage medium of computer system 26</u>. Coleman in Column 6, lines 48-57 discloses that the users may be at various remote locations from the computer system 22 and can access the computer system 22 via Internet or TCP/IP connection to access the data conversion system and method executing on computer system 22.

Therefore, it would have been obvious, at the time of the invention, to one of ordinary skill to combine the well known systems and functions for peer-to-peer data replication of data across a network of servers having copies of an inventory database of Jain with the equally well known integration server functions for data conversion of Coleman with no change in their respective function, and the combination would have yielded predictable results with regard to the synchronizing of databases residing in different computer systems.

- ***Pushing the inventory transaction information in the target format to the target inventory system, and***
- ***Generating a target inventory transaction in the target inventory system,***
- ***Wherein the target inventory transaction is based, at least in part, on the inventory transaction information in the target format, and***

- *Performing the target inventory transaction comprises committing the inventory transaction information in the target format to target inventory transaction information of the target inventory system.*

Jain in at least Fig.2D and Column 6, lines 36-43 discloses the state of the two databases before and after the replication.

Jain in at least Column 6, lines 44-52 discloses that after the DbB->DbA and DbA->DbB replications both databases reflect the overall changes that occurred in each database.

Jain in at least Fig.11A1 and Column 6, lines 53-61 discloses that a trigger is executed when a modification (e.g., update, insert or delete) occurs to a row in a table, the trigger identified a deferred remote procedure call (DRPC) that has as its arguments the old value, new value, and the operation (e.g., insert, delete, or update). Jain in at least Column 21, lines 31-38 further discloses executing transactional DRPC entries contained in the replication tables.

Jain in at least Fig.11B and Column 21, lines 39-59 disclose database modifications being committed at block 1170 in a destination node.

Claims 2 and 10:

With regard to the following limitations:

- *Using the inventory transaction information in the target format to perform at least one computer-implemented act from a set of computer implemented acts comprising:*

- *Creating a new inventory transaction record in the target inventory system; and*

- *Updating an existing inventory transaction record in the target inventory system.*

Jain in at least Fig.11A1 and Column 6, lines 53-61 discloses that a trigger is executed when a modification (e.g., update, insert or delete) occurs to a row in a table, the trigger identifies a deferred remote procedure call (DRPC) that has as its arguments the old value, new value, and the operation (e.g., insert, delete, or update). Jain in at least Column 21, lines 31-38 further discloses executing transactional DRPC entries contained in the replication tables.

Jain in at least Fig.11B and Column 21, lines 39-59 disclose database modifications being committed at block 1170 in a destination node.

Claims 3 and 11:

With regards to the limitations:

- ***Extracting inventory information in a source format from the source computerized inventory management system;***

- ***Converting inventory information from the source format into an intermediate format; and***

- ***Converting inventory information from the intermediate format into the Target format.***

Jain does not specifically disclose that the source format and target format are different. Jain in at least Column 5, lines 1-10 discloses that numerous specific details have been provided to provide a more thorough description of the present invention and in some instances; well-known features have not been described in detail so as not to obscure the invention.

However Coleman in at least Fig. 1 and Column 2, lines 41-56 discloses a data conversion system and method which uses a data conversion language/engine (DCLE) to convert data from any number of different types or formats from any of various platforms to a single common data standard which is then converted to a new desired format or type. The system and method allows for multiple database conversions. The computer system 22 in Fig. 1 executes the data conversion system and method on data received from the first storage medium of a mainframe 24 and subsequently converts the data from the single common data standard to the format of the second storage medium of computer system 26. Coleman in Column 6, lines 48-57 discloses that the users may be at various remote locations from the computer system 22 and can access the computer system 22 via Internet or TCP/IP connection to access the data conversion system and method executing on computer system 22.

Therefore, it would have been obvious, at the time of the invention, to one of ordinary skill to combine the well known systems and functions for peer-to-peer data replication of data across a network of servers having copies of an inventory database of Jain with the equally well known integration server functions for data conversion of Coleman with no change in their respective function, and the combination would have yielded predictable results with regard to the synchronizing of databases residing in different computer systems.

- *Using the inventory transaction information in the target format to perform at least one computer-implemented acts from a set of computer-implemented acts comprising:*

- *Creating a new inventory transaction record in the target inventory system; and*

- *Updating an existing inventory transaction record in the target inventory system.*

Jain in at least Fig.2D and Column 6, lines 36-43 discloses the state of the two databases before and after the replication.

Jain in at least Column 6, lines 44-52 discloses that after the DbB->DbA and DbA->DbB replications both databases reflect the overall changes that occurred in each database.

Claims 4-8, 12-28 and 30-33:

With regard to the limitations:

- *The inventory information in the intermediate format is a collection of transaction inventory records with various fields.*

Jain in at least Fig.2A discloses an example of an inventory record containing a description of the item in inventory and the quantity on hand.

Jain in at least Fig.2B further discloses a basic order transaction containing the database site where the order was entered, the customer placing the order, the item ordered, the quantity and whether the order line item was filled or not followed by a commit which makes the changes permanent when the order is filled.

Jain in at least Fig.3 further discloses a transaction identifier, a delivery order number, a start time a user identifier and a parameters and exceptions table.

Jain does not specifically disclose an intermediate format; however Coleman in at least Column 1, lines 54-60 discloses that one difficulty in converting data between systems is that different data storage hierarchies are used in different systems. Coleman in at least Fig. 1 and Column 2, lines 41-56 discloses a data conversion system and method which uses a data conversion language/engine (DCLE) to convert data from any number of different types or formats from any of various platforms to a single common data standard which is then converted to a new desired format or type. The system and method allows for multiple database conversions. The computer system 22 in Fig. 1 executes the data conversion system and method on data received from the first storage medium of a mainframe 24 and subsequently converts the data from the single common data standard to the format of the second storage medium of computer system 26.

Coleman in at least Column 3, lines 41-57 further discloses that depending upon the complexity of changes to the data hierarchy itself, i.e., the arrangement and relationship of the units and parts between the different formats to be converted, one or more intermediate output environments may be created to expedite the conversion process.

Coleman in at least Column 4, lines 46-61 further discloses that the data conversion system and method accesses data from the first computer system, assesses the data and performs the conversion to a generic type. Coleman in at least Column 5, lines 1-31 further discloses that the generic type (common data format) is converted to the format required by the second computer system.

Therefore, it would have been obvious, at the time of the invention, to one of ordinary skill to combine the well known systems and functions for peer-to-peer data replication of data across a network of servers having copies of an inventory database of Jain with the equally well known elements of Coleman's data conversion language/engine (DCLE) located on an intermediate conversion computer system/server to achieve the predictable results of synchronization of

database information resident in various formats on various computer systems wherein the synchronization is being performed at an intermediate computer system/server.

Conclusion

15.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL DANNEMAN whose telephone number is (571)270-1863. The examiner can normally be reached on Mon.-Thurs. 6AM-5PM Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Florian Zeender can be reached on 571-272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Paul Danneman/
Examiner, Art Unit 3627
24 June 2010

/F. Ryan Zeender/

Supervisory Patent Examiner, Art Unit 3627